

IN THE CLAIMS

Please cancel all pending claims, i.e., claims 1-5, without prejudice or disclaimer of the subject matter recited therein and please add new claims 6-25 as follows:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-5 (Canceled).

6. (New) A device for damping oscillations of a combustion chamber comprising:
at least one resonator connected to a pre-chamber in a vibration-damping manner,
wherein the pre-chamber is connected to a combustion chamber in a vibration-damping manner via at least one passage channel.

7. (New) The device of claim 6, wherein the combustion chamber adjoins an injection head having at least one injection element.

8. (New) The device of claim 7, wherein the injection head conducts a fuel flow into the combustion chamber.

9. (New) The device of claim 8, wherein the pre-chamber is arranged upstream of the at least one injection element.

10. (New) The device of claim 8, wherein the pre-chamber is arranged an area of the at least one injection element.

11. (New) The device of claim 6, wherein the pre-chamber is in fluid connection with a fuel flow.

12. (New) The device of claim 6, wherein the at least one passage channel is part of an injection element.

13. (New) The device of claim 6, wherein the combustion chamber is part of a rocket engine.

14. (New) A system for damping oscillations, the system comprising:

a combustion chamber;

an injection head arranged upstream of the combustion chamber;

a pre-chamber arranged upstream of the injection head; and

at least one resonator structured and arranged to dampen vibrations of the combustion chamber and comprising one of:

an opening communicating with the pre-chamber; and

an opening communicating with an open area of the injection head.

15. (New) The system of claim 14, wherein the combustion chamber comprises an outlet arranged opposite the injection head.

16. (New) The system of claim 14, wherein the opening communicating with the pre-chamber comprises a circumferential opening.

17. (New) The system of claim 14, wherein the at least one resonator is annular shaped.

18. (New) The system of claim 14, wherein the at least one resonator comprises a sleeve which extends into the open area of the injection head.

19. (New) The system of claim 14, wherein the at least one resonator comprises a sleeve oriented along a direction of gas flow and which extends into the open area of the injection head.

20. (New) The system of claim 14, wherein the at least one resonator comprises a plurality of sleeves at least one of oriented along a direction of gas flow and extending into the open area of the injection head.

21. (New) The system of claim 14, wherein the at least one resonator comprises a radially oriented opening communicating with the pre-chamber.

22. (New) The system of claim 14, wherein the at least one resonator comprises a plurality of radially oriented openings communicating with the pre-chamber.

23. (New) The system of claim 14, wherein the at least one resonator comprises a radially oriented opening communicating with the open area of the injection head.

24. (New) The system of claim 14, wherein the at least one resonator is one of:
integrally formed in a side wall of the pre-chamber;
integrally formed in an end wall of the pre-chamber; and
integrally formed in a side wall of the injection head.

25. (New) A system for damping oscillations of a rocket engine, the system comprising:
a combustion chamber;
an injection head arranged upstream of the combustion chamber;
a pre-chamber arranged upstream of the injection head; and
at least one resonator structured and arranged to dampen vibrations of the combustion chamber and comprising one of:
an opening communicating with the pre-chamber; and
an opening communicating with an open area of the injection head.